

REMARKS

Summary

Claims 1, 2, 5, 8-10, 13, 16, 17 and 20-22 stand in this application. Claims 3, 4, 6, 7, 11, 12, 14, 15, 18, 19, 23 and 24 were previously canceled without prejudice. Favorable reconsideration and allowance of the standing claims are respectfully requested.

35 U.S.C. § 102

At page 2, paragraph 5 of the Office Action claims 1, 2, 5, 8-10, 13, 16, 17 and 20-22 stand rejected under 35 U.S.C. § 102 as being anticipated by US 5,212,777 to Gove et al. (“Gove”). Applicant respectfully traverses the rejection, and requests reconsideration and withdrawal of the anticipation rejection.

Applicant respectfully submits that to anticipate a claim under 35 U.S.C. § 102, the cited reference must teach every element of the claim. *See* MPEP § 2131, for example. Applicant submits that Gove fails to teach each and every element recited in claims 1, 2, 5, 8-10, 13, 16, 17 and 20-22 and thus they define over Gove. For example, with respect to claim 1, Gove fails to teach, among other things, the following language:

wherein said data paths are configured based upon said connections between said control units and said data paths to perform said first process and said second process in parallel, the configuration information received on each clock cycle from one or more of the control units.

According to the Office Action, the missing language is disclosed by Gove at column 2, lines 13-17, column 3, lines 5-20 and column 5, lines 20-34. Applicant respectfully disagrees.

Applicant respectfully submits that Gove, at the given cites, arguably teaches switching between SIMD and MIMD modes of operation on a cycle-by-cycle basis. By way of contrast, the claimed subject matter teaches performing a first process (e.g. SIMD) and a second process (MIMD) in parallel with configuration information received on each clock cycle from one or more of the control units. Applicant respectfully submits

that he has been unable to locate any teaching in Gove directed to the above recited language of independent claim 1.

Applicant submits that merely switching back and forth between SIMD and MIMD modes of operation on a cycle-by-cycle basis, as arguably taught by Gove, is clearly different than operating both SIMD and MIMD modes in parallel and receiving configuration information on each clock cycle, as recited in claim 1. Consequently, Gove fails to disclose all the elements or features of the claimed subject matter. Furthermore, Applicant submits that Gove additionally fails to teach, among other things, the following language of claim 1:

a switch to connect said control units to said data paths, said switch to receive configuration information to establish a first set of connections between at least one of said control units and multiple data paths to execute a first process using single instruction multiple data processing with said at least one control unit to control said multiple data paths, and a second set of connections between multiple control units and multiple data paths to execute a second process using multiple instruction multiple data processing with each control unit to control a single data path; wherein said data paths are configured based upon said connections between said control units and said data paths to perform said first process and said second process in parallel.

Applicant respectfully submits that the above recited language of claim 1 further defines over Gove.

According to the Office Action, Gove teaches the above recited language of claim 1 at column 1, line 47 to column 3, line 20, column 5, lines 20-56, column 6, lines 6-43, column 7, lines 5-13, column 8, line 42 to column 9, line 13, column 16, lines 6-17, column 61, line 60 to column 652, line 24, Figure 1, Figure 2, Figure 4, Figure 14, Figure 15, Figure 17, Figure 61 and Figure 62. Applicant respectfully disagrees. Applicant respectfully submits that he has been unable to locate any teaching in Gove directed to “a first set of connections between at least one of said plurality of control units and multiple data paths to execute a first process using single instruction multiple data processing with said at least one control unit to control said multiple data paths, and a second set of

connections between multiple control units and multiple data paths to execute a second process using multiple instruction multiple data processing with each control unit to control a single data path..." with said first process and said second process performed in parallel as recited in claim 1.

Applicant respectfully submits that Gove, arguably, teaches a multiprocessor system where each processor can operate to execute the same instruction at the same time (SIMD mode) or different instructions at the same time (MIMD mode). The system of Gove, arguably, is designed to allow switching between the operational modes. Applicant respectfully submits, however, that he has been unable to locate any teaching in Gove directed to operating both SIMD and MIMD modes in parallel and in the specific configuration described above in claim 1. Applicant respectfully submits that Gove, arguably, teaches a "multilink, multi-bus crossbar switch between the individual processors and the individual memories" that "allows the system to perform in both the SIMD and MIMD modes." Gove at column 3, lines 57-61. Gove, however, does not teach performing the SIMD and MIMD modes in parallel.

Furthermore, Gove at column 6, lines 6-22, teaches that "the system can operate in several operating modes, one of these modes being a single instruction multiple data (SIMD) mode.... The second operational mode is the multiple instruction, multiple data mode (MIMD).... the system can easily switch between operational modes periodically when necessary to operate the different algorithms of the different instruction streams." Applicant respectfully submits that Gove reference arguably teaches a system that can "switch between operational modes" as necessary, however, Gove fails to teach, suggest or disclose a system wherein the different operational modes can be performed in parallel.

Moreover, even if Gove were to teach operating in both operational modes in parallel, which Applicant does not admit, Applicant respectfully submits that Gove fails to teach, suggest or disclose operating in both modes in the configuration described above in claim 1. Applicant respectfully submits that Gove fails to teach or suggest how to configure a system so that SIMD and MIMD processes may be run in parallel as recited in claim 1. By way of contrast, the claimed subject matter discloses that running SIMD

and MIMD processes in parallel is achieved by configuring the data paths based upon the connections between said data paths and the control units. Consequently, Gove fails to disclose all the elements or features of the claimed subject matter. Accordingly, Applicant respectfully requests removal of the anticipation rejection with respect to claim 1. Furthermore, Applicant respectfully requests withdrawal of the anticipation rejection with respect to claims 2, 5, 8 and 9, which depend from claim 1 and, therefore, contain additional features that further distinguish these claims from Gove.

Claims 10, 16 and 22 recite features similar to those recited in claim 1. Therefore, Applicant respectfully submits that claims 10, 16 and 22 are not anticipated and are patentable over Gove for reasons analogous to those presented with respect to claim 1. Accordingly, Applicant respectfully requests removal of the anticipation rejection with respect to claims 10, 16 and 22. Furthermore, Applicant respectfully requests withdrawal of the anticipation rejection with respect to claims 13, 17 and 20-21 that depend from claims 10 and 16 respectively, and therefore contain additional features that further distinguish these claims from Gove.

Conclusion

For at least the above reasons, Applicant submits that claims 1, 2, 5, 8-10, 13, 16, 17 and 20-22 recite novel features not shown by the cited references. Further, Applicant submits that the above-recited novel features provide new and unexpected results not recognized by the cited references. Accordingly, Applicant submits that the claims are not anticipated nor rendered obvious in view of the cited references.

Applicant does not otherwise concede, however, the correctness of the Office Action's rejection with respect to any of the dependent claims discussed above. Accordingly, Applicant hereby reserves the right to make additional arguments as may be necessary to further distinguish the dependent claims from the cited references, taken alone or in combination, based on additional features contained in the dependent claims that were not discussed above. A detailed discussion of these differences is believed to be unnecessary at this time in view of the basic differences in the independent claims pointed out above.

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Examiner: Aimee J. Li
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It is believed that claims 1, 2, 5, 8-10, 13, 16, 17 and 20-22 are in allowable form.
Accordingly, a timely Notice of Allowance to this effect is earnestly solicited.

The Examiner is invited to contact the undersigned to discuss any matter concerning this application.

The Office is hereby authorized to charge any additional fees or credit any overpayments under 37 C.F.R. § 1.16 or § 1.17 to Deposit Account 50-4238.

Respectfully submitted,

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John F. Kacvinsky, Reg. No. 40,040
Under 37 CFR 1.34(a)

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